UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,599	04/22/2004	Kuldipsingh A. Pabla	5681-75600	6853

58467　　　7590　　11/27/2007		EXAMINER
MHKKG/SUN		JACOBS, LASHONDA T
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AUSTIN, TX 78767	ART UNIT	PAPER NUMBER
	2157	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/829,599	PABLA, KULDIPSINGH A.
	Examiner	Art Unit	
	LaShonda T. Jacobs	2157	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 September 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *7/3/06*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

This Office Action is in response to Applicant application filed on September 11, 2003.

Claims 1-52 are pending and presented for examination.

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims **15-19** and **45-52** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims **15-19** and **45-52** lacks or not limited to (based on intrinsic evidence) physical articles or objects which are structurally and functionally interconnected to the code in such a manner or to establish a statutory category of invention and enable the code to act as a computer component and realize its functionality.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims **1-52** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirin et al (hereinafter, "Shirin", U.S. Pub. No. 2005/0060349) in view of Verbeke et al (hereinafter, "Verbeke", U.S. Pub. No. 2004/0098447).

As per claims **1, 21** and **29**, Shirin discloses a grid computing system, comprising:

- a master node configured to manage a grid comprising one or more compute nodes (abstract, paragraph 0019 and 0024, Shirin discloses a grid establishment component (GEC) that determines which nodes to include in the resource grid by carrying out a node discovery or selection process);

- a node configured to send the master node information about compute node configuration of the node (paragraphs 0025-0026, 0030 and 0033, Shirin discloses the GEC sending/receiving configuration information from another node that needs to reboot);

wherein the master node is configured to:

- determine from the information about compute node configuration that the compute node configuration of the node needs to be updated (paragraphs 0026 and 0027, Shirin discloses configuring each grid node by causing each grid node to reboot in order to participate as part the resource grid); and

- send update information for the compute node configuration that the compute node configuration of the node needs to be updated (paragraphs 0025-0026, 0030 and 0033, Shirin discloses the GEC sending/receiving configuration information from another node that needs to reboot); and

- send update information for the compute node configuration (paragraphs 0025-0026, 0030 and 0033, Shirin discloses the GEC sending/receiving configuration information from another node that needs to reboot).

However, Shirin does not explicitly disclose:

- wherein the configuration is done in accordance with the one or more peer-to-peer platform protocols.

Verbeke discloses a system and method for submitting and performing computational tasks in a distributed heterogeneous networked environment comprising:

- wherein the configuration is done in accordance with the one or more peer-to-peer platform protocols (paragraphs 0011, 0013and 0075).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shirin by incorporating or implementing peer-to-peer platform protocols for the purpose of improving the performance of information discovery, content delivery and information processing that can enhance the overall reliability and fault-tolerance of computing systems.

As per claims **9** and **15**, discloses a method, computer-accessible medium comprising:

- a node on a network sending a master node information about compute node configuration of the node, wherein the master node is configured to manage a grid comprising one or more compute nodes (paragraphs 0025-0026, 0030 and 0033, Shirin discloses the GEC sending/receiving configuration information from another node that needs to reboot);

- the master node determining from the information about compute node configuration that the compute node configuration of the node needs to be updated (paragraphs 0025-0026, 0030 and 0033, Shirin discloses the GEC sending/receiving configuration information from another node that needs to reboot);and

- the master node sending update information for the compute node configuration to the node (paragraphs 0025-0026, 0030 and 0033, Shirin discloses the GEC sending/receiving configuration information from another node that needs to reboot).

However, Shirin does not explicitly disclose:

- wherein the configuration is done in accordance with the one or more peer-to-peer platform protocols.

Verbeke discloses a system and method for submitting and performing computational tasks in a distributed heterogeneous networked environment comprising:

- wherein the configuration is done in accordance with the one or more peer-to-peer platform protocols (paragraphs 0011, 0013and 0075).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shirin by incorporating or implementing peer-to-peer platform protocols for the purpose of improving the performance of information discovery, content delivery and information processing that can enhance the overall reliability and fault-tolerance of computing systems.

As per claims **36, 37** and **45**, discloses a system, method and computer-accessible medium configured to participate as compute node in a grid computing system comprising one or more compute nodes comprising:

- means for determining if compute node configuration of the system needs to be updated (paragraphs 0025-0026, 0030 and 0033, Shirin discloses the GEC sending/receiving configuration information from another node that needs to reboot)

- means for obtaining update information for the compute node (paragraphs 0026 and 0027, Shirin discloses configuring each grid node by causing each grid node to reboot in order to participate as part the resource grid); and

- means for updating the compute node configuration on the system in accordance with the update information (paragraphs 0026 and 0027, Shirin discloses configuring each grid node by causing each grid node to reboot in order to participate as part the resource grid).

However, Shirin does not explicitly disclose:

- wherein the configuration is done in accordance with the one or more peer-to-peer platform protocols.

Verbeke discloses a system and method for submitting and performing computational tasks in a distributed heterogeneous networked environment comprising:

- wherein the configuration is done in accordance with the one or more peer-to-peer platform protocols (paragraphs 0011, 0013and 0075).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shirin by incorporating or implementing peer-to-peer platform protocols for the purpose of improving the performance of information discovery, content delivery and information processing that can enhance the overall reliability and fault-tolerance of computing systems.

- As per claim **22**, **38** and **46**, Shirin discloses:

- wherein the other node is a logically nearby node to the system on the network

  (paragraphs 0008 and 0018-0019).

As per claims **23**, **30**, **39** and **47**, Shirin discloses:

- wherein the node is a master node configured to manage the grid (paragraphs 0018-

  0019).

As per claims **24**, **31**, **40** and **48**, Shirin discloses:

- wherein the node is a compute node in the grid (paragraphs 0026-0027).

As per claim **25**, Shirin discloses the invention substantially as claims discussed above.

However, Shirin does not explicitly disclose:

- wherein the program instructions are further executed by the processor to discover the

  node in accordance with one or more peer-to-peer platform protocols.

Verbeke discloses a system and method for submitting and performing computational tasks

in a distributed heterogeneous networked environment comprising:

- wherein the program instructions are further executed by the processor to discover the

  node in accordance with one or more peer-to-peer platform protocols (paragraphs 0180

  and 0198).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Shirin by incorporating or implementing peer-to-peer platform

protocols for the purpose of improving the performance of information discovery, content

delivery and information processing that can enhance the overall reliability and fault-tolerance of

computing systems.

As per claims **2, 10, 16,** and **41,** Shirin discloses the invention substantially as claims discussed above.

However, Shirin does not explicitly disclose:

- wherein the node is further configured to discover the master node in accordance with one or more peer-to-peer platform protocols.

Verbeke discloses a system and method for submitting and performing computational tasks in a distributed heterogeneous networked environment comprising:

- wherein the node is further configured to discover the master node in accordance with one or more peer-to-peer platform protocols (paragraphs 0180 and 0198).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shirin by incorporating or implementing peer-to-peer platform protocols for the purpose of improving the performance of information discovery, content delivery and information processing that can enhance the overall reliability and fault-tolerance of computing systems.

As per claims **3,** Shirin discloses the invention substantially as claims discussed above.

However, Shirin does not explicitly disclose:

- wherein the node comprises a bootstrapping mechanism configured to discover the master node and to send the discovered master node information about compute node configuration in accordance with the one or more peer-to-peer platform protocols at startup of the node.

Verbeke discloses a system and method for submitting and performing computational tasks in a distributed heterogeneous networked environment comprising:

- wherein the node comprises a bootstrapping mechanism configured to discover the
  master node and to send the discovered master node information about compute node
  configuration in accordance with the one or more peer-to-peer platform protocols at
  startup of the node (paragraphs 0183.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the
invention was made to modify Shirin by incorporating or implementing peer-to-peer platform
protocols for the purpose of improving the performance of information discovery, content
delivery and information processing that can enhance the overall reliability and fault-tolerance of
computing systems.

As per claims **4, 11, 17, 32,** Shirin discloses:

- wherein the node is further configured to update the compute node configuration in
  accordance with the update information (paragraphs 0026 and 0027d).

As per claims **5, 12, 18, 26, 33, 42** and **50,** discloses:

- wherein the node is further configured to self-configure as a compute node in the grid in
  accordance with the updated grid configuration information (paragraphs 0025-0026,
  0030 and 0033).

As per claim **6,** Shirin discloses the invention substantially as claims discussed above.

However, Shirin does not explicitly disclose:

- wherein the grid computing system further comprises a job submitter node and wherein
  the master node is further configured to:

- receive a job from the job submitter in accordance with the one or more peer-to-peer
  platform protocols;

- distribute the job to the node for execution in accordance with the one or more peer-to-peer platform protocols;

- receive the results of the execution from the node in accordance with the one or more peer-to-peer platform protocols; and

- send the results to the job submitter node in accordance with the one or more peer-to-peer platform protocols.

Verbeke discloses a system and method for submitting and performing computational tasks in a distributed heterogeneous networked environment comprising:

- wherein the grid computing system further comprises a job submitter node and wherein the master node (paragraphs 0161) is further configured to:

- receive a job from the job submitter in accordance with the one or more peer-to-peer platform protocols (paragraphs 0161-0164);

- distribute the job to the node for execution in accordance with the one or more peer-to-peer platform protocols (paragraphs 0161-0164);

- receive the results of the execution from the node in accordance with the one or more peer-to-peer platform protocols (paragraph 0169); and

- send the results to the job submitter node in accordance with the one or more peer-to-peer platform protocols (paragraphs 0169).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shirin by incorporating or implementing a job submitter for a peer-to-peer platform protocols for the purpose of improving the performance of information

discovery, content delivery and information processing that can enhance the overall reliability

and fault-tolerance of computing systems.

As per claims **7, 13, 19, 27, 34, 43** and **51**, Shirin discloses the invention substantially as

claims discussed above.

However, Shirin does not explicitly disclose:

- wherein the grid computing system is configured according to Sun Cluster Grid

  architecture.

Verbeke discloses a system and method for submitting and performing computational tasks

in a distributed heterogeneous networked environment comprising:

- wherein the grid computing system is configured according to Sun Cluster Grid

  architecture (paragraph 0011).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Shirin by incorporating or implementing a SunGRID for the

purpose of enabling users to run applications over several computers in a network in order to

enhance the overall reliability and fault-tolerance of computing systems.

As per claims **8, 14, 20, 28, 35, 44** and **52**, discloses:

- wherein the peer-to-peer platform protocols are JXTA protocols.

Verbeke discloses a system and method for submitting and performing computational tasks

in a distributed heterogeneous networked environment comprising:

- wherein the peer-to-peer platform protocols are JXTA protocols (paragraphs 0183-

  0185).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shirin by incorporating or implementing peer-to-peer platform protocols for the purpose of improving the performance of information discovery, content delivery and information processing that can enhance the overall reliability and fault-tolerance of computing systems.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pub. No. 2005/0027785 to Bozak et al

U.S. Pat. No. 6,009,455 to Doyle

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T. Jacobs whose telephone number is 571-272-4004. The examiner can normally be reached on 8:30 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
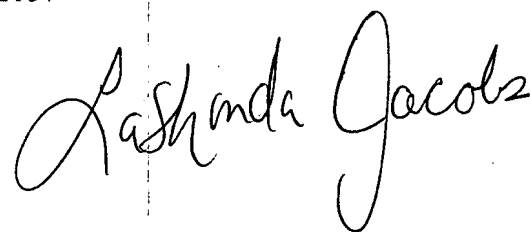
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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LaShonda T Jacobs
Examiner
Art Unit 2157

ltj
November 26, 2007